

### REMARKS

This application has been reviewed in light of the Office Action dated February 21, 2003. Claims 7-15 are pending in this application, with Claims 7 and 11 in independent form. Non-elected Claims 16 and 17 have been cancelled, without prejudice or disclaimer of the subject matter presented therein. Claims 7-15 have been amended to define more clearly what Applicants regard as their invention. Favorable reconsideration is requested.

Paragraph 9 of the Office Action indicates agreement with the arguments set forth in the previous Amendment, dated December 2, 2002, but states that the added features were not given patentable weight because they were recited in the preamble of Claims 7 and 11. In response, Applicants have amended Claims 7 and 11 to move the features at issue from the preamble to the body of these claims and respectfully submit that these features must now be given patentable weight.

The Office Action indicates that the Request For Approval Of Drawing Changes dated December 2, 2002 has been approved and that corrected drawings are required. In response, Applicants submit herewith a Letter Transmitting Corrected Drawings incorporating the approved drawing changes. In particular, corrected Figures 1 and 2 each incorporate the label --PRIOR ART--.

Claims 7 and 8 have been rejected under 35 U.S.C. § 102(a), as being anticipated by Applicants' Admitted Prior Art (AAPA), and Claims 10, 11, 12, 14, and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of U.S. Patent No. 4,722,824 (Wiech, Jr.). Claims 9 and 13 have been rejected under Section 103(a) as being unpatentable over AAPA in view of Wiech, Jr. and further in view of U.S. Patent No. 5,098,503 (Drake).

Applicants submit that amended independent Claims 7 and 11, together with the remaining dependent claims, are patentably distinct from the proposed combination of the cited prior art at least for the following reasons.

Claim 7 requires a method of manufacturing an ink jet head having a substrate and a ceiling member joined to the substrate, wherein the substrate includes a plurality of energy generating elements for generating energy utilized to discharge ink, and wherein the ceiling member has a plurality of flow passage walls which define a plurality of flow passages when the substrate is joined to the ceiling member, the energy generated by the energy generating elements acting on the ink to discharge the ink through the plurality of flow passages. The method includes the steps of providing a plurality of recessed portions in a surface on the substrate such that the plurality of recessed portions have a bottom surface located at a position which is lower than a position of a heat acting surface of the substrate; and fitting the plurality of recessed portions to the flow passage walls of the ceiling member by applying a force to the ceiling member along a direction in which the plurality of energy generating elements are arranged, thereby aligning the flow passages with the energy generating elements.

A notable feature of Claim 7 is the step of providing a plurality of recessed portions in a surface on the substrate such that the plurality of recessed portions have a bottom surface located at a position which is lower than a position of a heat acting surface of the substrate. Support for this feature can be found in the specification at least at page 32, line 18 to page 33, line 13, with reference to Figures 5 and 6. This portion of the specification states in part that "the contact portion between the heater board and the flow passage wall 1109 is disposed lower than a heat acting surface 1116 which is a surface portion along which heat is supplied to the ink from the electro-thermal transducer 1103 (in this invention, the direction directed to the

substrate 103 is expressed as low for convenience and does not indicate an actual downward direction) . . . .” In other words, the contact surface 1119 of the heater board and the lower end portion of the flow passage wall 1109 of the ceiling plate is at a lower position relative to the heat acting surface 1116 if the substrate 103 is defined as being in the lower direction. (It is to be understood, of course, that the scope of Claim 7 is not limited to the details of this embodiment, which is referred to only for purposes of illustration.)

In contrast, AAPA does not teach or suggest such a feature. In reference to Figure 2 and page 2, line 4, to page 4, line 19 of the specification, AAPA discloses the flow passage wall joining surface 1115 being at a higher position relative to the heating portion 1116 if the substrate 103 is defined as being in the lower direction. Therefore, Applicants submit that nothing in AAPA would teach or suggest the recessed portions having a bottom surface located at a position which is lower than a position of a heat acting surface of the substrate, as recited in Claim 7. Accordingly, Applicants submit that Claim 7 is patentable over AAPA and respectfully request the withdrawal of the corresponding Section 102(a) rejection.

Independent Claim 11 includes the same step of providing a plurality of recessed portions in a surface on the substrate such that the plurality of recessed portions have a bottom surface located at a position which is lower than a position of a heat acting surface of the substrate as discussed above in connection with Claim 7, and is submitted to be patentable over AAPA for at least the same reasons.

In regard to Wiech, Jr., the Office Action refers to this reference to allegedly teach assembling “walled members to unwalled members, i.e., substrate, (shown in Fig. 1) through the selection of material composition and vibration techniques to align and bond the members together . . . .” (See page 4 of the Office Action.) Even if Wiech, Jr. is deemed to

teach such a feature, Applicants submit that nothing in Weich, Jr. would teach or suggest the step of providing a plurality of recessed portions in a surface on the substrate such that the plurality of recessed portions have a bottom surface located at a position which is lower than a position of a heat acting surface of the substrate, as required by Claim 11.

Therefore, Applicants submit that, at least for the reasons discussed above, the proposed combination of AAPA and Wiech, Jr., assuming such combination would even be permissible, would still fail to teach or suggest the step of providing a plurality of recessed portions in a surface on the substrate such that the plurality of recessed portions have a bottom surface located at a position which is lower than a position of a heat acting surface of the substrate, as recited in Claim 11. Accordingly, Applicants submit that Claim 11 is patentable over this prior art, taken separately or in any proper combination, and respectfully request withdrawal of the corresponding Section 103(a) rejection.

A review of the other art of record has failed to reveal anything that, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as applied against the independent claims herein. Therefore, those claims are respectfully submitted to be patentable over the art of record.

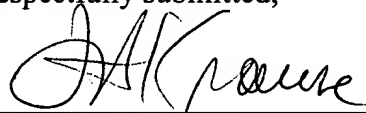
The other rejected claims in this application depend from one or another of the independent claims discussed above and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

This Amendment After Final Action is believed to place this application in condition for allowance and, therefore, its entry is believed proper under 37 C.F.R. § 1.116. Accordingly, entry of this Amendment After Final Action, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested. Should the Examiner believe that issues remain outstanding, it is respectfully requested that the Examiner contact Applicants' undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and the allowance of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



Attorney for Applicants

Registration No. 24613

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

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